Listing of Claims

1. (Previously Presented) A behavioral biometrics-based user verification system for use with a mouse input device, said system comprising:

a data interception unit for receiving inputs from a user, wherein the data interception unit is configured to passively collect mouse data generated in response to the user;

a behavior analysis unit operatively coupled to said data interception unit to receive the passively collected mouse data, and

a behavior comparison unit operatively coupled to said behavior analysis unit, wherein said system dynamically monitors and passively collects behavioral biometric information, and translates said behavioral biometrics information into representative data, stores and compares different results, and outputs a user identity result.

2. (Previously Presented) The user verification system of claim 1, wherein said system is suitably configured for real-time monitoring.

3. (Previously Presented) The user verification system of claim 2, further comprising secure communication protocols operatively coupled to said data interception unit.

4. (Previously Presented) The user verification system of claim 1, wherein said data interception unit is configured to identify data based on mouse movement between first and second locations, wherein movement between the first and second locations is not associated with a mouse click.

5. (Original) The user verification system of claim 4, wherein said data interception unit is further configured to characterize movement based on at least one of average speed, average traveled distance, and direction of movement.

6. (Cancelled)

7. (Previously Presented) The verification system of claim 1, wherein said data

interception unit is further configured to identify action from a mouse as one of drag and drop, point and click, mouse movement, and silence such that in use, said system receives data from a mouse.

8. (Original) The user verification system of claim 7, wherein said data interception unit is further configured to characterize mouse movement based on at least one of average speed, average traveled distance, and direction of movement.

9. (Previously Presented) A method of characterizing a user comprising the steps of:

moving a computer mouse,

dynamically monitoring and passively collecting behavioral biometric information from the mouse,

processing said passively collected behavioral biometric information, and

developing a signature for a user based on the processed information.

10. (Original) The method of claim 9, further comprising comparing said signature with a signature of an authorized user.

11. (Previously Presented) The method of claim 10, further comprising filtering said data after processing and before developing the signature to reduce noise.

12. (Currently Amended) The method of claim 11, further comprising ~~collecting,~~ collecting and processing said data, and developing the signature in real-time.

13. (Cancelled)

14. (Previously Presented) The method of claim 9, wherein said collecting data further comprises characterizing movement based on at least one of average speed, average traveled distance, and direction of movement.

15-18. (Cancelled)

19. (Previously Presented) The system of claim 1, wherein the behavior comparison unit is configured to store user identities for a plurality of potential users, and the user identity result identifies the user from among the plurality of potential users.

20. (Previously Presented) The system of claim 1, wherein the behavior comparison unit is configured to produce the user identity result based on mouse movement speed compared to traveled distance, average speed per direction of movement, a distribution of movement directions, average speed with respect to action type, a distribution of actions, a distribution of traveled distance, and a distribution of movement elapsed time.

21. (Previously Presented) The method of claim 9, wherein the signature for the user is developed based on movement speed compared to traveled distance, average speed per direction of movement, distribution of movement directions, average speed with respect to action type, a distribution of actions, a distribution of traveled distance, and a distribution of movement elapsed time.

22. (Previously Presented) The method of claim 9, wherein the passively collected behavioral biometric data is based on mouse movement between first and second locations, wherein movement between the first and second locations is not associated with a mouse click.

23. (New) The method of claim 9, wherein the behavioral biometric information from the mouse is obtained in a background process.

24. (New) The system of claim 1, wherein the behavior analysis unit is configured to establish a user signature based on a plurality of sessions in an enrollment mode.

25. (New) A behavioral biometrics-based user verification system for use with a mouse input device, said system comprising:

a data interception unit for receiving inputs from a user, wherein the data interception unit is configured to passively initiate collection of mouse data;

a behavior analysis unit operatively coupled to said data interception unit to receive the passively collected mouse data; and

a behavior comparison unit operatively coupled to said behavior analysis unit, wherein said system dynamically monitors and passively collects behavioral biometric information, and translates said behavioral biometrics information into representative data, stores and compares different results, and outputs a user identity result.

26. (New) A behavioral biometrics-based user verification system for use with a mouse input device, said system comprising:

a data interception unit for receiving inputs from a user, wherein the data interception unit is configured to transparently collect mouse data generated in response to the user;

a behavior analysis unit operatively coupled to said data interception unit to receive the transparently collected mouse data; and

a behavior comparison unit operatively coupled to said behavior analysis unit, wherein said system dynamically monitors and passively collects behavioral biometric information, and translates said behavioral biometrics information into representative data, stores and compares different results, and outputs a user identity result.